D. Sprinkler Systems: Fact Sheet

In the past, institutions have overestimated the chance of an accidental discharge from a sprinkler system and underestimated the amount of damage done by fires in an area without sprinklers. A sprinkler system is the recommended fire protection for a records repository.

WET PIPE AUTOMATIC SPRINKLERS
Pipes are charged with water under pressure. The sprinkler heads are heat-activated usually at 165 degrees F. Heads open individually. Most fires will usually be extinguished with one or two sprinkler heads. There is a danger of discharge if the pipes freeze. The risk of accidental discharge because of malfunction is one in one million.

PRE-ACTION AUTOMATIC SPRINKLERS
Pipes are normally filled with air. When a fire is detected, usually by heat, a valve will open allowing the water to fill the pipes. There is no danger of the pipes freezing.

ON-OFF AUTOMATIC SPRINKLERS
They are similar to a pre-action system, except that the valve not only opens at a set temperature, but also the valve will close when it is no longer needed. It will re-open if a fire breaks out again.

DRY PIPE AUTOMATIC SPRINKLERS
Pipes are filled with air under pressure. The sprinkler system is activated by heat. When the air pressure is released, a valve will open allowing the system to fill with water. Sprinkler heads will release water only in areas where the valves are open. This system is good for areas that are subject to freezing, e.g. loading docks.

STAND PIPE AND HOSE
This is a piping system in the building that is attached to hoses. This system requires training before the staff should use it.

HALON SYSTEM
This is an invisible gas, which leaves no residue. The area must be airtight in order for the halon to be effective. The system is expensive. The gas used is environmentally un-friendly and will not be available in the near future.